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Structure of Agricultural Prices and Wages in Colombia

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Colombia is in an extremely dynamic stage of development. During the next few years it is likely to encounter many perplexing problems of economic policy. Under present agricultural methods, labor inputs per acre and per unit of product run much above those in many other countries. Prices of many important agricultural products are higher, whereas wages are much lower than in the United States. These conditions, however, are changing.

Population is shifting rapidly from farm to city, and new, though small, industries are springing up. New agricultural areas are being developed in the coastal regions, in the Magdalena Valley, and on the Llanos. Combines and tractor plows are operating in sight of the primitive farmer with his spade, hoe, and machete. Additional railways and roads promise to change the pattern of interregional competition radically within the next decade. These influences are sure to cause many economic stresses, some of which will be especially hard on the small farmer who is not in a position to apply improved methods.

Objectives and Assumptions

The general objective of this study is to appraise the general, over-all economic efficiency of Colombian agriculture. For the benefit of readers in the United States, comparisons will be made with the agriculture of this country. Interest centers primarily in the production phases of the two economic systems. This includes the combination of human and physical resources and the technology in accordance with which these are used. The techniques of consumption are beyond the scope of the present article.

Colombia is of interest as representing the tropical American type. It is, however, farther advanced and in a more dynamic stage of development than most other countries in the same region. An important fact to recognize is that only limited sections of the two national economic systems can be compared directly. Climatic conditions differ widely between the two countries, and with them the necessities for food, clothing, and shelter. There are also important differences in the appropriate technology, in education, and in various customs and institutions, which modify both production and consumption.

The fundamental purpose of an economic system is to provide the highest possible supply of goods and services at minimum social cost, considering both human effort and the depletion of nonhuman resources. Agriculture is an integral part of an economy—not an institution existing in and for itself. Its function is to provide the food, fiber, and other crop and livestock products which the population requires. Its economic efficiency might be compared as between two countries, inversely, in terms of the cost (that is, real cost as distinguished from money costs) at which such materials are provided. Any one of three lines of attack might be made on this problem:

1. A comparison of the proportions of the respective populations which are engaged in production of food, fiber, and other agricultural products; allowance being made for the effect of exports and imports on the fraction of national labor employed in agriculture.

2. A direct comparison of the labor used in the two countries in producing given products.

3. A comparison of the fraction of total earnings which a modal member of society must give up in order to obtain food and fiber materials in the two countries.

Each of these three lines of approach will be explored insofar as limitations of data permit. Definitive answers cannot be obtained in this case, but some interesting comparisons can be made. These will show the limitations under which Colombian agriculture labors and the direction in which it is likely to develop.

Certain significant elements of cost can be compared directly. And this part of the analysis can be supplemented by deductions from the respective systems or constellations of prices. The largest element of cost in each case is labor. Direct labor input differs widely between the two countries. A large amount of information is available on labor costs in the United States, but in Colombia there are only rough estimates on some of the more important crops.

*Office of Foreign Agricultural Relations.

Proportion of Population in Agriculture

The simplest over-all comparison indicating approximate relative farm efficiency can be made by comparing the proportions of total population required to produce agricultural products utilized by each of the two countries. In the United States 23 percent of the population on January 1, 1940, lived on farms. In 1945, this figure had fallen to 18 percent.[1] In Colombia there are no exactly comparable figures. The general opinion is that two-thirds to three-quarters of the population live on farms or are in villages closely dependent on agriculture. These villages appear to contain a higher percentage of farm laborers than similar towns in the United States—partly because there is less other industry to furnish employment.

Food-consuming habits differ between the two countries. Inhabitants of the United States use relatively more of the "protective" foods and more of the highly refined foods. Further, though each country exports some food products, Colombia exports a greater proportion of its output than does the United States. A Colombian census in 1939 enumerated 701,420 farms, of which 149,348, or 21 percent, produced coffee.[2] Only 8 or 10 percent of this crop was consumed within the country. Both the total number of farms and the number producing coffee have increased since 1939, but the proportion is probably about the same. In addition, just before the war, exports of bananas were valued at about one-tenth as much as coffee shipments, though they provided less than one-tenth as much employment. Producers for export, however, especially the coffee growers, raise most of their own food. Therefore, not all their labor can be charged against the export trade.

After making rough allowances for differences in employment between types of products, and for the labor used by coffee and banana producers on goods consumed domestically, we may say that probably about one-fifth of Colombian agricultural labor is used on exported products. In contrast, in the United States only about one-tenth of the agricultural labor used directly on crops and livestock was spent on exported products, at least in the late 1930's.[3]

On the other side of the picture, both Colombia and the United States import part of the agricultural products they use. Colombia imports fats and oils, wheat, cotton, and some minor products. The United States imports sugar, coffee, bananas, pineapples, hides, wool, and minor products. Colombia undoubtedly imports a greater proportion of the agricultural products that it consumes than does the United States. The proportion imported by Colombia has declined materially since Pearl Harbor. However, imports did not account for a very large fraction of total consumption in either case. Making some allowance for these imports, we may still safely assume that the Colombians spent about 50 percent of their total labor in producing food and fiber as compared with 16 or 17 percent of total United States labor.

Agricultural-Labor Requirements

Agricultural-labor requirements are, in general, much higher per acre, or per unit, of product in Colombia than in the United States. Relatively little effort has been made to determine typical numbers of hours used in raising crops, and no comprehensive field studies have been undertaken, such as those familiar to us in the United States. Some estimates have been made by persons acquainted with Colombian methods of production; but, since they are not based on actual records, they may contain a considerable margin of error. Nevertheless, they are sufficiently consistent to provide a few general conclusions when compared with data collected by the United States Department of Agriculture on corresponding crops.

Mechanization of crop production in Colombia has as yet made relatively little progress, except on a few of the large haciendas. Farm tractors are not common and are not always used to fullest advantage. Most Colombian farms are small in area as compared with typical farms in the United States. In densely settled regions, such as those in Boyacá and Nariño Departments, and in the intensive coffee-producing regions, a farm family may have only 4 or 5 acres of tillable land. Further, a large proportion of the farms are located

[1] According to data from U. S. Bureau of Agricultural Economics and the Fifteenth Census of the United States.

[2] Wylie, Kathryn H. The Agriculture of Colombia. U. S. Dept. Agr. Foreign Agr. Bul. No. 1, 160 pp., illus. Washington. 1942. See pp. 20, 42.

[3] Hopkins, John A. Changing Technology and Employment in Agriculture. (U. S. Bur. of Agr. Econ.) 189 pp., illus. Washington. 1941. See pp. 147, 163.

FIGURE 1.—Reference map of Colombia.

on steep or rocky hillsides, or mountains, where it would be hard to use even animal-drawn implements. A large, though unknown, proportion of the small Colombian farmers have no mechanical or animal power at all, and consequently plant and harvest their crops entirely by hand, with the aid of hoes, machetes, and spades. Where power is used, it is generally furnished by slow-moving oxen rather than horses, or tractors.

At the other extreme, a few progressive owners of large acreages on the level Bogotá Sabana, in the Cauca Valley, the Magdalena Valley, the Santa Marta banana zone, and other relatively level areas are rapidly adopting tractor power.

In the production of cereal crops, Colombian labor requirements generally run far above those in the United States. Raising corn with the aid of a tractor in the Department of Huila is estimated to require about 90 hours per acre. On smaller acreages, where the work is all done by hand, the figure may run almost twice as high as this. By contrast, the requirement in the South Atlantic States of the United States is estimated at 41 hours, and in the East North Central States at 25 hours. For rice production with tractors, the Colombian figures are around 150 hours as compared with 33 for Louisiana. For wheat, Colombian requirements are estimated at 50 to 175 hours per acre, depending on conditions and methods used. This may be compared with 20 hours per acre in the South Atlantic States and 6.3 hours in the West North Central States.

An estimate of typical requirements for cotton production in Tolima Department is 246 hours per acre; whereas, when a tractor is used to prepare the seedbed and cultivate the crop in adjacent Huila, the estimate is 135 hours. This last figure is only slightly higher than the 122 hours required on an average (with horses and mules) in the South Atlantic States. But very little cotton in Colombia is raised with tractor power.

For potato production, as an illustration, a typical grower, who used oxen as his source of power on the Bogotá Sabana, estimated his requirements at 262 hours per acre. This compares with 77 hours for the Middle Atlantic States. In the production of tobacco, a well-qualified observer in Santander Department, the most important Colombian tobacco region, estimated that nearly 1,200 hours per acre are used to raise the plants, plant and care for the crop, and harvest and cure the tobacco. This may be compared with an estimate of 444 hours for the South Atlantic States. Higher labor requirements in Colombia are not compensated for by higher yields.

These high labor requirements put the typical Colombian agricultural worker at a very serious disadvantage as compared with the worker in the United States. Even when a tractor is used, a laborer in Huila produces only half as much corn per hour as does the farmer in southern United States, and one-seventh as much as the midwestern farmer. Where oxen or hand methods are employed, the difference is much greater. In wheat production, the Colombian farmer who uses oxen or hand methods produces only one-fourth to one-fifteenth as many pounds of grain per hour as the farmer in the United States regions mentioned above. The Colombian potato farmer who was interviewed obtains one-third as many bushels per hour of work as does the Pennsylvania or New York farmer.

No data are available on labor costs for cattle raising. Hours per head of beef cattle are probably higher than under the most nearly comparable conditions in the United States but not relatively so high as for crops. Disadvantages in cattle production come rather from a low calf crop and low rate of gain on growing animals. These are caused by climatic conditions in the cattle regions, poor pastures, and the prevalence of tropical disease and insect pests. Also, rather large amounts of labor are required in clearing pastures and keeping down undesirable plants and brush.

Dairy production, particularly in the temperate, upland regions, such as the Bogotá Sabana, may be carried on at a labor cost per cow below the United States average. There is year-round pasturage in this area, and it is not necessary to stable the cows. The prevalence of low-yielding cows and the general absence of supplementary feeding partly offset this advantage at present.

No data are available on labor costs in the production of coffee, bananas, plantains, or manioc, all of which are highly important in Colombia's economy. The fact that these crops are not produced in the United States, however, would prevent any direct comparison.

The comparisons made are highly important in explaining the low level of living of the typical Colombian farm worker. There are opportunities, however, for improving labor efficiency in all of the crops mentioned. For the present, low production per hour and per worker seriously limits

real income. In the long run, a nation can consume only that which it produces directly or buys with its surplus product. In this case, agricultural production is particularly important because of the high proportion of population engaged in or closely dependent on farming.

As improved methods are applied to agriculture, Colombian standards of rural living may be expected to rise, and also a change to occur in the entire industrial make-up of the country. The most important improvements are likely to be of labor-saving types, and application of these will release labor from farms. Indeed, there is already a fairly rapid movement from farms to cities. This provides the labor supply essential to a rise in relative importance of manufacturing, commerce, and service occupations.

Up to this time the population has consumed the increased output of food crops at rising prices, though most of the recent price strength has been attributable to wartime inflationary influences. As expansion of food production goes further, however, a point will be reached when increased output from more efficient production will lead to lower food values. At this stage competition from newly expanded regions will force the living conditions of small farmers, such as those in Boyacá and Nariño, to a much lower level than at present. Thus, to a large degree, the change in farm-labor efficiency holds the key to Colombia's economic future.

Agricultural Prices

The third method of appraising the relative efficiency of agriculture is by comparing the fraction of total earnings which a modal member of society must give up in order to obtain food and fiber materials. Such an analysis cannot be carried through completely because of lack of cost-of-living studies in Colombia. An approximation, however, can be made by comparing relative amounts of a list of individual commodities obtainable in exchange for the price of a month of labor. In the course of this process we can obtain, incidentally, a rather clear-cut picture of essential differences between the Colombian and the United States price systems.

These two systems of prices differ rather strikingly. In the first place, tropical and semitropical products are obviously much cheaper in Colombia than in the United States, and products of the Temperate Zone are more expensive. Second, most industrial goods are high-priced in Colombia. Domestic production of such goods generally utilizes small-scale methods, and imports must bear heavy duties and freight charges.

A further important influence on the price system is that Colombian interest rates are high, whereas wages are quite low by United States standards. Capital is therefore used sparingly and labor very freely. Low wages mean that laborers have low buying power. This in turn restricts the market for industrial products and tends to perpetuate the existing price pattern to the disadvantage both of laborers and of small farmers.

RECENT PRICE MOVEMENTS

Before the analysis is carried further, one should note that the ratios between prices of products, and those between prices and wages, which are of especial importance here, would change rapidly if different year-to-year trends were being followed in the two countries. In the period under study prices in each country were dominated in a large measure by powerful wartime influences. The timing of the price fluctuations differed between the two countries with the degree of governmental control exercised over them. Nevertheless, the ratios of Colombian to United States prices at the end of hostilities in 1945 were very similar to those at the beginning of the war in 1939.

Prices received by United States farmers doubled from 1939 to 1945, and foods at wholesale rose by a half.[4] Thereafter, various price-control measures were imposed, and there was only a 15-percent further increase in farm prices during the next 2 years. (See fig. 2.)

In Colombia, on the other hand, there was but little control, and prices rose more rapidly after 1943 than before. Wholesale food prices were 26 percent higher in 1943 than in 1939. But a further rise equal to 43 percent of the 1943 value occurred between 1943 and June 1945. Grains in Bogotá (wheat, corn, and rice) were 60 to 80 per-

[4] Changes cited in farm prices are based on USDA Bur. of Agr. Economics index of prices received by farmers. Wholesale-food-price index is from the Bur. of Labor Statistics series. The Colombian wholesale-food-price index is prepared by the Statistical Section of the *Contaloria Nacional*. This latter index is based on the sum of prices of one arroba (27.6 lb.) of each of the following articles: Rice, wheat flour, corn, coffee, beef, pork, animal lard, sugar, panela (brown loaf sugar), plantains, potatoes, yuca (manioc), beans, plus 25 bottles of about 0.75 quart each of milk, and 100 eggs.

cent higher in 1945 than in 1939. Steers were up 80 percent, lard 132 percent, and most other items (table 1) had risen from a half to three-fourths. In Medellín, the price of coffee (*excelso* or export grade) was 49 percent above that in 1939 as compared with a 32-percent rise in New York.

PRICE LEVELS.

Cereals.—In 1939, at the outbreak of World War II, a bushel of wheat cost 2.6 times as much in Barranquilla and 3.6 times as much in Bogotá as in Chicago. The corresponding rates in 1945 were 2.0 and 2.6, respectively. Flour had risen relatively more in Colombia than in the United States, with the ratio changing from 2.5 to approximately 3.0 times the United States price. (See table 1.)

In 1939 a bushel of corn in Barranquilla was 1.8 times the Chicago price, and in Medellín it was 2.6 times as high. In 1945 the corresponding ratios were 1.3 and 2.3. The high Colombian prices are attributable to laborious production methods and low yields.

Wide price variations within Colombia may be explained largely by the location of producing relative to consuming areas and by high costs of transportation from one region to another. Because of incompletely organized markets and transportation difficulties, a large crop in one region often has little effect on price in a deficiency area a few hundred miles away. Thus, in June 1945, corn was the equivalent of $1.53 per bushel in Barranquilla, whereas in Medellín (only about 225 miles distant in a straight line) it was $2.72 per bushel.

TABLE 1.—*Wholesale agricultural prices at Bogotá, Colombia, and in the United States, 1939 and June 1945*

[Dollars[1] per unit]

Commodity	Unit	1939		June 1945	
		United States[2]	Bogotá	United States[2]	Bogotá
Wheat	Bushel	0.80	2.88	1.79	4.81
Flour	100 lb	2.66	7.07	4.14	12.21
Corn	Bushel	.51	1.10	1.18	1.97
Rice	100 lb	3.40	6.38	6.60	11.59
Beans	100 lb	3.25	9.37	6.90	14.48
Potatoes	100 lb	1.25	3.33	4.06	6.42
Sugar	100 lb	4.60	4.71	5.40	6.73
Cotton	Pound	.102	.162	.213	.243
Steers	100 lb	9.14	5.31	16.56	9.56
Hogs	100 lb	7.10	--------	14.75	19.52
Beef	100 lb	16.30	10.36	20.00	18.62
Pork	100 lb	13.30	14.71	20.70	18.62
Lard	Pound	.069	.156	.138	.362
Butter	Pound	.253	--------	.410	.543
Milk	100 lb	1.60	2.31	3.28	3.61
Eggs	Dozen	.161	.243	.388	.534
Coffee	Pound	.123	.086	.162	.132
Plantains	100 lb	--------	1.64	--------	2.90
Manioc	100 lb	--------	1.97	--------	3.10

[1] Pesos converted at the rate of $0.571 per peso in 1939 and $0.570 in June 1945.

[2] U. S. wholesale market prices for calendar year at Chicago unless otherwise indicated. Market classes as follows: Wheat, No. 2 red, soft winter; flour, short patents at St. Louis; corn, No. 2 yellow; rice, polished, blue rose at New Orleans; beans, navy, dry, New York; sugar, New York, granulated; cotton, middling, New Orleans; steers, fair to good; hogs, good to choice; beef, steers; pork, composite price; lard, prime, contract; butter, 92 score; eggs, fresh, current receipts, U. S. extras for 1945; coffee, green, Medellín at New York.

Compiled from official and commercial sources.

Rice in the three Colombian markets in 1939 was 1.6 to 1.9 times as high as in the United States. In 1945 the ratios were still about the same. Beans in Colombia were from 2.0 to 2.9 times United States prices in 1939 and from 1.6 to 2.4 in 1945.

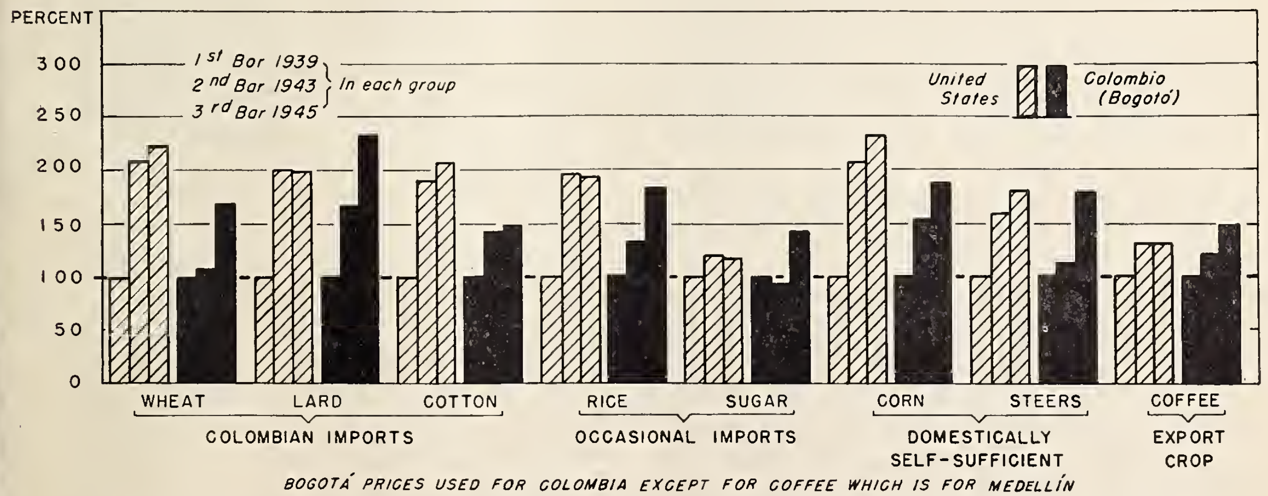

FIGURE 2.—Changes in selected agricultural prices in Colombia, compared with those in the United States, 1943 and 1945, are expressed as percentages of 1939.

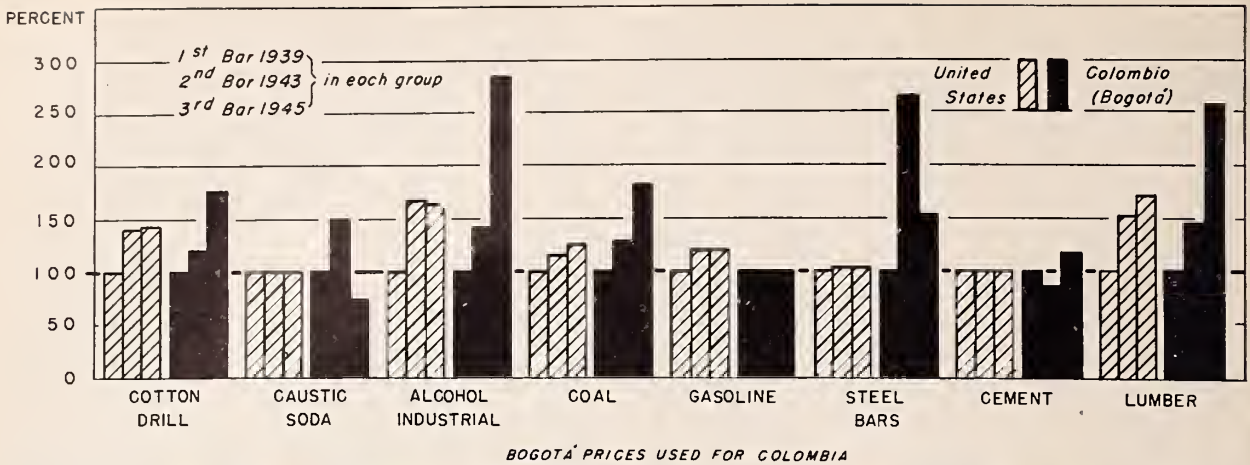

FIGURE 3.—Changes in selected industrial prices in Colombia, compared with those in the United States, 1943 and 1945, are expressed as percentages of 1939.

Root crops and plantains.—Potatoes are produced in Colombia chiefly in cool uplands, such as the region around Bogotá. The price differs from year to year with weather conditions and consequent yield. In 1939 potatoes were relatively scarce, and the Colombian price was nearly three times that in Chicago and, in 1945, about 1.6 times as high.

In the warmer low-lying Colombian areas, manioc and plantains are produced and consumed instead of potatoes. These products in 1939 cost a half to two-thirds as much per 100 pounds as potatoes. Their prices fluctuate rather widely from year to year and from place to place.

Fats.—Fats are relatively scarce in Colombia, and part of the deficiency of hog lard is made up by vegetable lard, which is produced under semi-monopolistic conditions. Consequently, the wholesale price of hog lard in the three Colombian cities under discussion was from 2.1 to 2.6 times the Chicago price in 1939 and about 2.5 times the Chicago price in 1945.

Other crops.—Sugar is produced in Colombia under unusually favorable conditions of soil and climate. The *ingenios* (mills), however, are relatively small and less efficiently operated than those in Cuba or other intensive sugar areas. Some 94 or 95 percent of Colombian sugar is sold through a central producers' selling agency. Wholesale Colombian sugar prices were approximately equal to those in New York in 1939 but were 25 percent or more higher in 1945.

The price of cotton rose less in Colombia than in the United States. In 1939, it was 1.6 times the United States level; but, in 1945, the ratio was only 1.1 or 1.2.

Meat animals.—Beef is produced in Colombia under the favorable condition of year-round pasturage. In 1939, the price per 100 pounds of steers was about six-tenths as high in Bogotá and Medellín as in Chicago. Approximately the same relationship still held in 1945. The quality of the Colombian beef is, however, much lower than that of the United States. Hogs, unlike cattle, are produced at a disadvantage in Colombia. Corn is too expensive to use as hog feed, and no other satisfactory and economical feeds have been developed.

Industrial Prices

Prices of imported industrial goods, like those of imported agricultural products, generally run much higher in Colombia than in the United States. This is true of such commodities as chemicals, steel, and machinery. On the other hand, a few domestic products, such as coal and brick, may be as cheap as in the United States or even cheaper.

Prices of cotton drill were a third higher in Colombia than in the United States both in 1939 and 1945, whereas percale was about twice as high in 1939 and even higher in 1945. (See table 2.) Chemicals have been particularly costly in Colombia. Caustic soda, used extensively in soap making and various other industries, was two or three times as high as in the United States both in 1939 and in 1945. Alcohol for industrial purposes cost 1.4 to 2.4 times as much in 1939 and from

2.3 to 3.8 times in 1945. Sulphuric acid, which is a relatively cheap industrial material in the United States, is handled and used in small amounts in Colombia. Freight and containers often cost more than the acid there. In 1939 it cost 15.9 times as much per ton in Bogotá as in the United States; in 1945 it cost 7.8 times as much.

Coal is mined in Colombia not far from Bogotá or from Medellín. It was slightly cheaper than in the United States in 1939 but rose to ratios of 1.3 or 1.4 by 1945. On the other hand, gasoline, which is also produced within the country, was materially higher at wholesale than in the United States. Prices of this product were strictly controlled by law and were at the 1939 level in 1945.

Among building materials, bricks were relatively cheap, and the cost for those of equal cubic content was only two-thirds as much as in the United States. Colombian bricks, however, are much larger than those in the United States and are of lower quality. Cement was about a third higher than in the United States in 1939 and 80 percent higher in 1945. There are only a few cement mills in the country, usually only one each at such cities at Bogotá, Medellín, Cali, Bucaramanga, and Barranquilla. Competition between plants is but slight, partly because of interlocking ownership, and partly because of high transportation costs between the cities named.

Forests are abundant in some parts of Colombia, but lumber is either sawed by small mills or actually by hand. Consequently, Bogotá prices for lumber of similar grade were 1.3 times United States prices in 1939 and 1.9 in 1945. In Medellín and Barranquilla the ratios were even higher.

Steel reinforcing bars have been in strong demand in Colombia during the building boom of recent years. In 1939 they cost half again as much per ton in Barranquilla, and twice as much in Medellín and Bogotá, as they did in the United States. With the interruption of supplies during the war, reinforcing bars were sold in some cities for more than five times the ceilings in this country. In 1945, however, they were back to levels between 2.3 and 3.3 times United States prices.

Frequent mention is made of the high prices of automobiles and of farm machinery in South America. In the case of Colombia, however, these items are relatively no higher than other imported goods. In 1939, a Ford automobile sold in Bogotá for 1.8 times the United States price; tractors or other farm implements were mostly from 1.3 to 1.5 times as high. By 1943, implement prices were roughly 1.7 times United States levels, in spite of efforts to keep them down.

After Pearl Harbor the imposition of price ceilings and other control measures in the United States held price increases for the articles under discussion to small percentages. In Colombia steps were also taken to prevent large rises. But these met with varying degrees of success, depending on the nature of the commodity and of the market. Thus, no increase was allowed in gasoline prices, and this could be enforced, because of the Government's relationship to the few foreign petroleum companies operating in the country. Coal, alcohol, steel, and lumber were in less manageable situations, and marked degrees of increase resulted (fig. 3).

TABLE 2.—*Selected wholesale industrial prices at Bogotá, Colombia, and in the United States, 1939 and June 1945*

[Dollars [1] per unit]

Commodity	Unit	1939		June 1945	
		United States	Bogotá	United States	Bogotá
Cotton cloth:					
Drill,[2] 7 oz. per sq. yd.	Sq. yd	0.202	0.272	0.359	0.490
Percale,[3] 3 oz. per sq. yd.	Sq. yd	.103	.193	.149	.360
Chemicals:					
Sulphuric acid,[4] 66% conc.	2,000 lb	16.50	262.66	16.50	128.82
Caustic soda, solid, 76%.	100 lb	2.30	7.77	2.30	5.81
Alcohol, denatured, 190 proof.	Gallon	.299	.404	.500	1.15
Paper:					
Newsprint	2,000 lb	50.00	55.17	61.00	135.31
Kraft	2,000 lb	38.94	109.56	73.00	217.48
Fuel:					
Coal, soft,[5] mine run	2,000 lb	4.31	3.88	5.39	7.03
Gasoline [6]	Gallon	.049	.110	.059	.110
Building materials:					
Steel, reinforcing bars.	2,000 lb	42.00	93.24	43.00	141.17
Cement	2,000 lb	15.00	21.66	15.00	25.76
Brick,[7] common	1,000	11.00	6.00	15.00	9.76
Lumber,[8] unplaned	1,000 bd. ft	32.25	28.85	46.75	100.55
Machinery:					
Auto, Ford, 4-door, deluxe.	Piece	765.00	1,337.00	------	------
Tractor, 3-plow, steel wheels.[9]	do	1,125.00	1,499.00	1,155.00	1,995.00
Disk plow, 3 disks [9]	do	289.50	441.95	340.60	588.24
Disk harrow, 8-ft.[9]	do	168.50	252.38	187.45	336.30
Plow, 2-horse, walking, 10-in.[9]	do	18.00	17.13	19.70	22.23

[1] Pesos converted at the rate of $0.571 per peso in 1939, and $0.570 in 1945.
[2] Drill, white or fast color, 28″ width.
[3] Percale, fast color, 24½″ wide in U. S., 28″ in Colombia.
[4] Sulphuric acid, f. o. b. works in eastern U. S.; in wholesale lots in Colombian cities.
[5] Coal, U. S. price on track, destination; Colombia, in cities named, prices to large purchasers, delivered.
[6] Gasoline, in U. S. at refinery, north Texas; in Colombia, tank wagon price.
[7] Colombian brick vary in size from one region to another. In Bogotá the dimensions are 8 x 12 x 25 cm. In this study, prices were converted to equivalent of cubic content of 1,000 U. S. bricks.
[8] U. S. prices for southern pine, No. 2 or better at Chicago. In Colombia quotations are for unplaned common lumber, which represents a mixed variety of woods.
[9] Farm machinery, prices paid by farmers.

Compiled from official and commercial sources.

TABLE 3.—*Retail food prices, in United States and Bogotá, Colombia, 1939, 1943, and June 1945*

[U. S. cents [1] per unit]

Commodity	Unit	1939		1943			June 1945		
		United States	Medellín	United States	Bogotá	Medellín	United States	Bogotá	Medellín
Bread	Lb	8.0	----	8.9	----	----	8.8	28.5	32.4
Wheat flour	Lb	3.8	9.3	6.1	9.3	13.0	6.4	12.9	15.5
Corn	Lb	----	2.1	----	4.7	4.2	----	4.2	5.7
Corn meal	Lb	4.6	2.6	5.6	----	9.4	6.4	----	12.9
Rice	Lb	7.7	10.3	12.7	9.9	10.4	12.9	12.4	14.0
Potatoes	Lb	2.5	3.9	4.6	4.7	8.3	5.9	9.8	7.2
Beans [2]	Lb	6.2	8.3	10.1	12.5	10.4	11.4	16.5	18.1
Sugar	Lb	5.4	5.7	6.8	5.2	4.7	6.7	7.8	7.2
Coffee, roasted	Lb	22.5	18.2	29.9	----	18.2	30.4	24.9	25.9
Lard	Lb	10.9	24.9	19.0	26.0	26.0	18.8	34.1	38.8
Butter	Lb	32.5	33.7	52.6	33.8	41.6	50.0	49.1	62.1
Eggs	Doz	32.6	20.6	57.2	27.5	34.4	51.0	47.9	47.9
Beef, better cuts	Lb	[3] 35.9	23.3	[3] 43.9	16.6	26.0	[3] 40.0	23.8	41.4
poorer cuts	Lb	[4] 23.5	18.2	[4] 30.2	----	20.8	[4] 27.6	23.3	33.6
Pork	Lb	[5] 30.9	18.2	[5] 40.3	18.7	20.8	[5] 36.8	25.4	41.4
Milk	Qt	12.3	----	15.5	5.8	6.5	15.6	----	12.4
Yuca (manioc)	Lb	----	1.2	----	3.1	2.1	----	----	3.1

[1] Pesos converted at the rate of $0.571 per peso in 1939, $0.573 in 1943, and $0.570 in 1945.
[2] Dry navy beans in U. S.; dry red beans in Colombia.
[3] Round steak. [4] Chuck roast. [5] Chops.

Compiled from official and commercial sources.

Buying Power of Corn and Cattle

The degree of difference between the Colombian and United States price constellations may be brought out more clearly by comparing some of the price ratios. As was pointed out earlier, labor costs of corn in Colombia are much higher per acre and per bushel than in the United States. This does not mean that the producer gets more for his corn. A grower with 100 bushels of corn ready for sale at Bogotá in June 1945 could get for it about the same amount of rice, potatoes, or gasoline, or the same fraction of a tractor, that he would have obtained in Chicago. He could have obtained more than twice as much as in the United States if he took payment in terms of green coffee, or live steers, or bricks. On the other hand, the Colombian farmer would have received only two-thirds to three-quarters as much as the United States grower for his 100 bushels of corn if he took payment in wheat, lard, alcohol, caustic soda, or lumber. And if he wanted to put up a concrete building, he would have received only half as many pounds of reinforcing steel.

The position of beef cattle is in sharp contrast to that of grain in Colombia. For one thing, cattle are produced under relatively favorable conditions as far as labor requirements and supply of pasture are concerned. Further, enough cattle are produced so that they encounter a relatively low priced market demand. While the monetary price of the corn was 1.7 times as high as in the United States, that of a 1,000-pound steer was only 0.7 as high.

Consequently, the cattle raiser in 1945 could have obtained in exchange for a 1,000-pound steer much less of virtually everything listed in table 2 than could a cattleman in the United States. In terms of grain, the Colombian would have received only one-fifth to one-fourth as much lard, caustic soda, alcohol, or steel; one-third as much gasoline, cement, or potatoes; one-half or less than one-half as much sugar, cotton, cotton goods, or coal.

These comparisons of buying power do not indicate, however, the relative profitableness of production as between the two countries. To reach a conclusion on this subject, cost rates would have to be taken into account; and no comprehensive data are available on this subject. Nevertheless, corn production and cattle raising were both considered more profitable in Colombia in 1945 than they had been in previous years.

Retail Food Prices and Wages of Labor

From the point of view of a nation as a whole (as distinguished from that of any single producers' group), the most important set of price relationships is that between wages and retail prices. These are, however, very difficult to com-

pare as between two countries, especially countries with different climates and traditions. Differences occur in working hours per week, or year, and also between the patterns of consumption. Consequently, the price of a particular food or clothing article may be highly important in one country but relatively unimportant in the other.

The problem of comparison is complicated by a lack of data on quantities of most of the retail articles consumed in Colombia and also on retail prices of articles other than food. Comparison must therefore be limited to certain food products which happen to be used in both countries. No adequate measures of real income can be developed from available data. Fortunately, there is a short list of prices of common foods used in Colombia. From this some idea, though an incomplete one, may be obtained of the position of labor in regard to this group of consumers' goods.

RETAIL FOOD PRICES

Bread, in 1945, cost about three times as much per pound in Bogotá and Medellín as in the United States, which explains why wheat consumption is low in Colombia. Flour was twice as high in Bogotá and Barranquilla and was 2.4 times as high in Medellín as in the United States (table 3). Rice was only 0.8 as high in Colombia as in the United States in 1943 but rose to a level of equality in 1945. Prices of potatoes differed widely from year to year and from region to region. In Bogotá they were about the same as in the United States in 1943 but were higher by three-fourths in 1945. (Relative changes in prices are shown in fig. 4.)

Other ratios of Bogotá to United States prices in 1945 were 1.8 for lard, 1.4 for beans, 0.9 to 1.2 for eggs, butter, and sugar. Roasted and ground coffee was only 0.8 as high in Bogotá as in the United States, and beef and pork were from 0.6 to 0.8 higher.

Even with cheap beef and pork in many parts of Colombia, low-income groups could not afford to eat much meat, for reasons which are to be discussed later. Relatively large parts of the diet were composed of yuca (manioc) and plantains, which are much cheaper than either wheat products or potatoes.

COLOMBIAN WAGES

Colombian wage levels are far below those in the United States (table 4). In 1939 farm wages in the Bogotá Sabana were less than one-fourth as high as in the East North Central Region of the United States. These two areas are contrasted here, because most of the Colombian prices with which the wages are to be compared refer to Bogotá, and most of those given for the United States refer to Chicago. From 1939 to 1945 Colombian farm wages doubled, whereas those in the East North Central Region rose about 140 percent. Consequently, in the latter year United States farm wages were six times as high as Colombian. In the hot low-lying Caribbean-coast region, farm workers received somewhat more than in the Colombian uplands, but the general comparison with the United States is pretty much the same.

Colombian city wages for common labor were about half again as high as farm wages in the

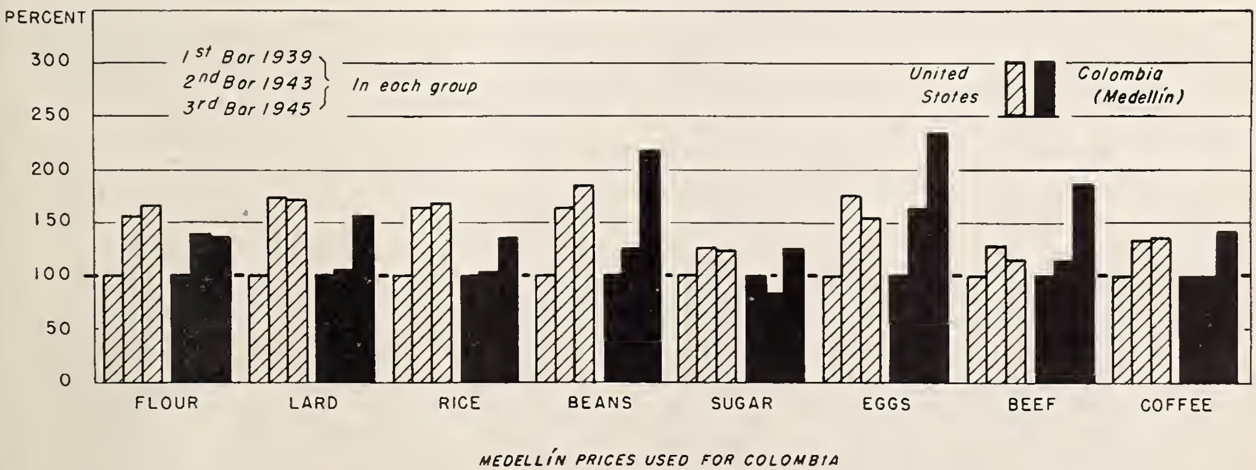

FIGURE 4.—Changes in selected food prices in Colombia, compared with those in the United States, 1939, 1943, and 1945.

years mentioned. The disparity is less than in the United States, where available figures show that city wages are from 60 to 180 percent above those for farm labor. Monetary wages for this type of labor were eight times as high in the United States as in Colombia in 1939. During the war, however, Colombian urban wages rose more rapidly and in 1945 were one-sixth as high as those in the United States.

TABLE 4.—*Wages*[1] *paid in Colombia and United States, 1939, 1943, and June 1945*

[Monthly agricultural wages and urban common labor]

Item	1939	1943	June 1945
Agricultural labor, per month, without board:			
Colombia:[2]	*Dollars*	*Dollars*	*Dollars*
Cundinamarca Department	8.56	8.60	17.10
Antioquia Department	9.99	10.03	----------
Atlántico Department	9.28	11.46	18.52
United States:			
East North Central Region	40.90	79.20	99.80
Urban common labor, month of 200 hours, or 25 days:			
Colombia:[3]			
Bogotá	13.55	22.25	25.25
Medellín	13.55	16.48	22.10
Barranquilla	15.70	17.55	27.80
United States:[4]			
Chicago	116.20	143.20	160.00

[1] In U. S. dollars. Pesos converted at the rate of $0.571 per peso in 1939, $0.573 in 1943, and $0.570 in 1945.

[2] For the Bogotá and Medellín regions the wages given are for the cool upland regions of Cundinamarca and Antioquia, respectively. For the Barranquilla region they represent the hot lowland Atlántico Department. Figures given represent wages for 25 days per month, since farm labor is paid on a daily basis even though employed continually.

[3] 25 work days per month.

[4] Data for the 3 years are not entirely comparable. The 1939 and 1943 figures represent wages for 200 hours at entrance rates for common labor. The 1939 wage is for Illinois, and the 1943 figure for the East North Central Region. The 1945 wage is for 200 hours' labor by hand-truckers in miscellaneous machinery manufacture in Chicago.

Compiled from official sources.

EXCHANGE RATIOS BETWEEN WAGES AND PRICES

When the effects of generally high prices are combined with those of low wages in Colombia, the cheapness of the Colombian labor becomes even more apparent. For example, wages for a month of farm labor in the East North Central Region of the United States was equal to the price of over 50 bushels of wheat both in 1939 and in 1945. (See table 5 and fig. 5.) In contrast, wages for a month of farm labor in the Bogotá Sabana would purchase only 3 bushels of wheat in 1939, or 3.6 in 1945.

Thus, the Illinois farmer could afford to employ labor in wheat production only to that point where the marginal month would produce 50 bushels. The Colombian farmer could continue to employ labor up to a marginal point of only 3.6 bushels.

TABLE 5.—*Buying power of farm labor, United States and Colombia, 1939 and 1945*

[Amounts of selected commodities that could be bought for 1 month's wage for farm labor, without board, East North Central Region of United States compared with Cundinamarca Department]

Commodity	Unit	1939		1945	
		United States	Colombia	United States	Colombia
WHOLESALE					
Agricultural:					
Wheat	Bu	51	3	56	4
Corn	Bu	80	8	85	9
Rice	Lb	1,203	134	1,512	148
Potatoes	Lb	3,272	257	2,458	266
Sugar	Lb	889	182	1,848	254
Cotton	Lb	401	53	468	70
Steers	Lb	447	161	603	179
Hogs	Lb	576	--------	677	88
Lard	Lb	593	55	723	47
Coffee	Lb	333	100	616	130
Industrial:					
Cotton drill	Sq. yd	202	19	278	21
Caustic soda	Lb	1,779	110	4,339	294
Alcohol, industrial	Gal	137	21	200	15
Coal, soft	Ton	9.5	2.2	18.5	2.4
Gasoline	Gal	835	78	1,692	156
Steel reinfc. bars	Ton	1.0	.1	2.3	.1
Cement	Ton	2.7	.4	6.6	.7
Brick	1,000	3.7	1.4	6.6	1.8
Lumber	Bd. ft	1,268	220	2,135	170
RETAIL					
Food:					
Flour	Lb	1,076	--------	1,559	133
Rice	Lb	531	--------	774	138
Potatoes	Lb	1,636	--------	1,692	174
Beans	Lb	660	--------	875	104
Sugar	Lb	757	--------	1,490	219
Coffee	Lb	182	--------	328	69
Lard	Lb	375	--------	531	50
Butter	Lb	126	--------	200	35
Eggs	Doz	125	--------	196	36
Beef, lower grade cuts	Lb	174	--------	362	73

Derived from data in tables 1 to 4, inclusive.

Likewise with other crops, wages for a month of farm labor could buy only 8 to 12 percent as much corn, rice, or potatoes in Colombia as in the United States. For sugar and cotton the corresponding figures were 13 to 20 percent. In terms of cattle, such labor was worth 36 percent as much as in the United States in 1939 and 30 percent in 1945.

The farmer in Colombia could substitute labor for materials and for mechanical power to a much greater advantage than one in this country, because a month's wages were worth only a third as many brick, or 8 to 17 percent as much cement or lumber. The substitution of labor for mechanical power was profitable in many cases in Colombia, because a month's wages there would buy less than one-tenth as many gallons of gasoline as they would in the United States.

These value relationships are consistent with the data presented earlier regarding amounts of labor spent in producing such crops as corn, wheat, rice, and potatoes. It was pointed out that five to ten times as many hours are used per acre of these crops in Colombia as in principal producing re-

gions of the United States. In some cases the disparity between the two countries was greater than this. A closer correspondence between the price-ratio and the labor-requirements data could hardly be expected. For one thing, the Colombian labor-requirement information comes from estimates rather than comprehensive surveys. For another thing, interest, profit rates, and intensity of land use all differ between the two countries. As a general thing, profit rates, as well as interest, are considerably above those in the United States.

Ratios of urban wage rates to industrial prices are quite similar to the agricultural relationships just described. The amount of money required to hire a month of unskilled urban labor in Colombia would buy only 5 to 10 percent as much cotton goods, caustic soda, alcohol, gasoline, construction steel, cement, or lumber as in the United States. Or a month's wages would buy 12 or 13 percent as much coal, or 20 to 25 percent as many brick.

A large part of the difference in buying power of urban labor is to be explained by less advantageous working conditions and the use of smaller capacity or less modern equipment. (See table 6 and fig. 5.)

Both with agricultural and industrial products the buying power of labor is especially low when expressed in terms of imported articles. This may be observed in regard to wheat, lard, caustic soda, and construction steel (fig. 5). Prices of these articles are, of course, increased above United States levels by transportation costs, handling charges, and import duties. Value of Colombian labor is relatively higher in terms of domestically produced articles, such as sugar, cattle, coffee, cement, lumber, brick, and coal, than in terms of imported goods.

Retail buying power of Colombian laborers, like the value of their product, is likewise much lower than in the United States. Either a farm laborer or an unskilled city laborer in Bogotá would have obtained in exchange for a month's wages only 8 to 10 percent as much flour or lard; 10 to 15 percent as much sugar, beans, or potatoes; and 15 to 21 percent as much rice, coffee, butter, eggs, or beef as would a corresponding worker in the East North Central States.

These figures, however, overstate the difference between the two countries in general level of living. For one thing, the Colombian worker is able to use some foods, such as yuca and plantains, which are not available in the United States, and which cost less than flour or potatoes. The laboring classes use such goods as eggs and meat less than is true in the United States, and butter is almost beyond their reach. By means of substitutes the Colombian is able to get along, though at a lower dietary level.

Second, one does not need so much clothing or houses that are so well insulated against cold weather in Colombia as in the United States. A third effect of low wages is that the Colombian worker must get along with very little in the way of entertainment, education, medical services, and so on. Thus, his real income, if it were possible to develop some comparable index, would certainly be found to be quite low, though not at a level only one-tenth or one-fifth as high as that of the United States worker.

How Colombian Real Income Will Be Increased

Earlier in this article the thesis was stated that agriculture should be considered as an integral

TABLE 6.—*Buying power of wage for urban common labor, United States and Colombia, 1939 and 1945*

[Amounts of selected commodities that could be bought for 1 month's wage for common labor, Chicago and Bogotá]

Commodity	Unit	1939		1945	
		United States	Colombia	United States	Colombia
WHOLESALE					
Agricultural:					
Wheat	Bu	145	5	89	5
Corn	Bu	228	12	136	13
Rice	Lb	3,418	212	2,424	218
Potatoes	Lb	9,296	405	3,941	393
Sugar	Lb	2,526	287	2,963	375
Cotton	Lb	1,139	83	751	104
Steers	Lb	1,271	254	966	264
Hogs	Lb	1,637	--------	1,085	129
Lard	Lb	1,684	86	1,159	70
Coffee	Lb	945	157	988	191
Industrial:					
Cotton drill	Sq. yd	575	30	446	31
Caustic soda	Lb	5,052	174	6,956	435
Alcohol, industrial	Gal	389	33	320	22
Coal, soft	Ton	27.0	3.5	29.7	3.6
Gasoline	Gal	2,371	123	2,712	230
Steel reinfc. bars	Ton	2.8	.1	3.7	.2
Cement	Ton	7.8	.6	10.7	1.0
Brick	1,000	10.6	2.2	10.7	2.6
Lumber	Bd. ft	3,603	348	3,422	251
RETAIL					
Food:					
Flour	Lb	3,058	--------	2,500	196
Rice	Lb	1,509	--------	1,240	204
Potatoes	Lb	4,648	--------	2,712	258
Beans	Lb	1,874	--------	1,404	153
Sugar	Lb	2,152	--------	2,388	324
Coffee	Lb	516	--------	526	101
Lard	Lb	1,066	--------	851	74
Butter	Lb	358	--------	320	51
Eggs	Doz	356	--------	314	53
Beef, lower grade cuts	Lb	494	--------	580	108

Derived from data in tables 1 to 4, inclusive.

part of a national or regional economy. It is successful insofar as it contributes toward high real income for the whole population.

Most Colombian agricultural commodities are produced at a high labor cost, as indicated above, and, consequently, the real income of the bulk of the population is much below that of the United States, which is used here as a basis of comparison. Interest in Colombia rests largely upon the fact that it is typical of several other countries in the American tropics. One should remember that Colombia does not represent one of the poorest but one of the best economic systems in this region.

It is fairly clear where the principal obstacles to higher real income lie and the directions in which progress is to be effected.

TOPOGRAPHY AND CLIMATE

The first limitations to economic development that will occur to the reader are those imposed by geographical and climatic conditions. Much of the agriculture of the country is on rough land where large machinery cannot be utilized. Further, many areas of relatively smooth land may consist either of relatively poor soil, as in the Llanos, or may be covered with jungle and infested with disease-carrying mosquitoes, as in large parts of the Magdalena Delta. Under these conditions, it is especially difficult to develop appropriate techniques for economical agricultural production or even for maintaining the health of the workers.

THE TECHNOLOGICAL PROBLEM

Scientific and technological training is still in an elementary stage in tropical America. In fact, the bulk of the rural population has inadequate schooling to take full advantage of the improved technological methods already known. Governments of these countries are far from wealthy. With a wide range of conditions to contend with, they are under strong pressure to dissipate what educational and extension resources they have in trying to keep abreast of developments in many different directions at once. Needed techniques for

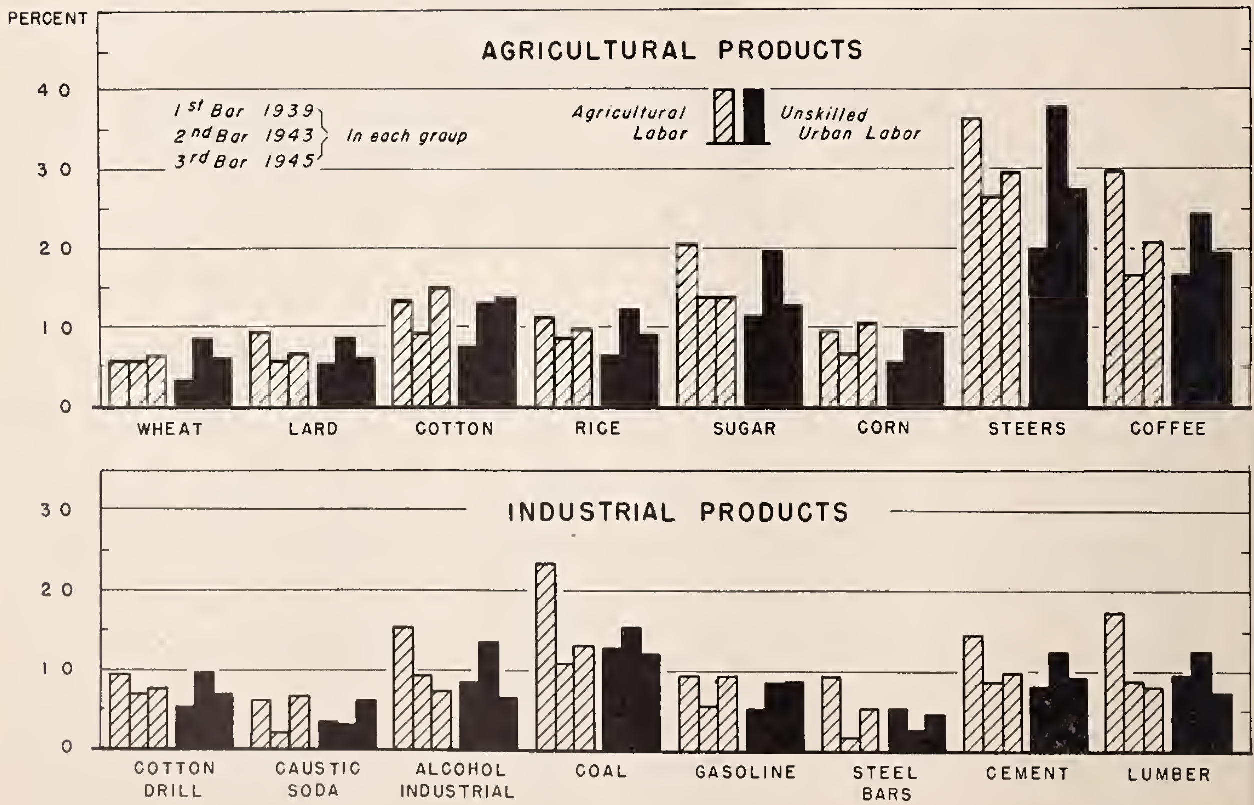

FIGURE 5.—Amounts of specified Colombian commodities that wages for 1 month's labor could buy, expressed as percentage of corresponding United States quantities, 1939, 1943, and June 1945.

lowering agricultural costs could be developed more cheaply by collaboration among a number of similar countries, or with larger nations, such as the United States.

Colombia needs improved varieties both of crops and of livestock, and it must adapt these to the specific natural conditions found in the country. Those adapted to the Temperate Zone seldom give satisfactory results in the Tropics. Such crops as coffee and cacao need to be bred for high yield and quality and for disease resistance. Some idea of the potential gain that might be obtained in coffee yield is afforded by individual tree records kept at the Chinchiná Coffee Experiment Station. In a group of 1,349 trees, the best 219 trees produced over 10 kilos (22 pounds) of coffee berries each, whereas, at the opposite extreme, 237 trees produced less than two kilos (4.4 pounds) each. The greater part of the difference undoubtedly came from genetic variation. Another part of the variation undoubtedly resulted from differences in soil occupied by individual trees.

Methods of soil management, fertilization, and erosion control need to be developed for the benefit of other crops as well as coffee. The application of mechanical power, where feasible and economical, could save great amounts of labor. In other areas the use of animal power and even of improved hand tools would be beneficial. It is true that mechanical power is already being adopted rather rapidly by some large landholders. But this applies to a relatively small fraction either of total area or of total number of Colombian farm workers.

CAPITAL NEEDED FOR NEW IMPROVEMENTS

Technological improvement requires not only years of work by research scientists and extension workers but also heavy capital investments. Some of these investments will consist of private capital spent for the purchase of equipment, permanent improvements, livestock, seeds, and fertilizers, as well as for working capital. Funds for these purposes are relatively scarce in Colombia, especially among small farmers.

Adequate means of transportation are lacking in many parts of the country. Considerable produce is transported on human backs, at least in the first stage of its trip to market. Much more is hauled on mules or burros. A well-informed Colombian agricultural authority estimated that on mountain trails it costs approximately 85 cents per ton-mile to haul such produce on pack mules. One man can manage about half a dozen mules on such trails. These carry from 200 to 250 pounds each and move their loads 12 to 14 miles per day, making allowance for return to their starting point. Hauling produce by truck may cost from 5 to 20 cents per ton-mile, and railroad rates for distances of around 100 miles run from 2.5 to 5 cents per ton-mile, depending somewhat on the nature of the country traversed. Large capital investments for new railroad lines and additional highways are already planned and are vitally important if Colombia is to take full advantage of the potential benefits of interregional specialization.

Progress in agriculture depends fully as much on the general economic and social organization of the nation as a whole as it does on agriculture itself. Large public expenditures will be necessary to promote the health of the Colombian people, particularly in the low-lying areas where malaria is widespread. Other investments will be needed to drain swampy areas, install irrigation systems, construct storage facilities, and for numerous other purposes.

SCOPE OF THE MARKET AND INDUSTRIAL MONOPOLY

The small scope of the industrial market depresses the social income in various ways. Not only does a narrow market make for small industrial units and high costs, but it facilitates the development of monopoly and semimonopoly conditions in many industries. About 95 percent of the sugar produced in Colombia is sold through a single sales agency. Manufacture of cigarettes, vegetable lard, textiles, and cement is dominated in each case by one to half a dozen corporations, which are protected from foreign competition by high import duties. Typical rates of profit are higher than in the United States, in spite of the smaller size of industrial plants. Relatively little concern is expressed, however, about these monopolies or about their effects on the development of the country.

All these influences on prices and on the volume of industrial activity are as important to Colombian farm people as they are to city people. They affect the farmer's real income through the prices of industrial goods that he gets in exchange for his produce. They affect also the volume of industrial production and urban employment and, therefore, the market for farm commodities.

Conclusion

As suggested earlier in this article, the buying power of labor, or, more broadly, the exchange ratios between wages and quantities of commodities, may be used as one means of testing relative economic efficiency as between two countries. Such a test is simple, and its results should be relatively easy for the layman to understand. It avoids the more abstruse theoretical arguments implied in financial comparisons of different national economic systems, as well as the problem of interpreting monetary valuations of production aggregates.

The Colombian data provide a good field for such a test. The comparisons made between commodity and wage ratios showed clearly that, in spite of relatively high prices (and incidentally high profit rates), Colombian agriculture and industry are giving the working masses very little in return for their labor.

Nevertheless, the simultaneous development of modern technology and of modern protectionism has raised some extremely difficult problems of economic policy for governments of the smaller nations. Self-sufficiency has become impossible to such nations, except at terrible economic cost. Pressures in favor of protection for special-interest groups are no less than in larger countries. At the same time, there is often a lack of competent technologists and economists who could aid in finding rational solutions to the policy problems.

Development of satisfactory methods for reducing agricultural costs in Colombia may depend on discoveries or developments in almost any science or in any country. Maintenance of far-flung scientific and technological facilities to work out the methods needed would be very costly. Technological improvements can be developed more cheaply in collaboration with other nations.

Economic collaboration between countries is likewise a virtual necessity. Colombia's products of greatest comparative advantage are coffee and bananas, among agricultural products, and petroleum and gold, among the minerals. Metaphorically speaking, the easiest and cheapest way for a Colombian farmer to produce wheat is to grow coffee and buy the wheat with the proceeds. The easiest way to obtain most types of machinery may be to produce petroleum or gold. A large volume of foreign trade is, therefore, a foregone conclusion. The problem which Colombia, or any other country, needs to solve in its own interest is not how to be self-sufficient but rather how to obtain the greatest possible amount of goods and services for its people.

Policy Measures and Food Production in Venezuela

by OSCAR MOORE*

The Venezuelan economy is beset by many problems that have led to the establishment of a Government farm policy calling for subsidies, liberal credit, high import tariffs, technical assistance, parcelation of land, and even expropriation. Greater production of domestically consumed staples and larger returns from export crops have been the goal of this policy. Progress has been made, but much remains to be accomplished, since low production on many farms, inadequate transportation facilities, and other factors make farming costs so great that Venezuelan products cannot readily compete on the world market.

*Office of Foreign Agricultural Relations.

High-Cost Economy

The cost of living is unusually high in Venezuela, and real income of the masses is low. This is attributed to several factors. Most manufactured products and many foodstuffs are imported, since domestic production is not equal to domestic requirements.[1] The high tariff on many imports increases their cost. Wholesalers and retailers of both domestic and imported products operate at a substantial margin. This contributes to a high over-all cost economy.

[1] Estimates for several years prior to World War II indicate that 40 percent of the country's food supply was imported.

Venezuela's exports are valued at about three times the value of its imports. It is second only to the United States in petroleum exports, and it is the third largest oil producer in the world after the United States and Soviet Union.[2] Under Government exchange control, the buying rate for dollars received for oil sold abroad is kept lower than that for the dollars received for other exports, which practice has the effect of an export tax on petroleum. The Government also collects large sums of revenue from the petroleum industry through diversion of about 20 percent of the value of oil returns into taxes and concession royalties (table 1).

TABLE 1.—*Estimated revenue receipts*[1] *of Venezuelan Government, by source, for fiscal year, 1943–44*

Source	Estimated receipts	
	Amount	Percentage of total
	Million dollars	*Percent*
Petroleum industry	41.9	36
Import duties	23.2	20
Liquor tax	9.3	8
Cigarette tax	8.1	7
Stamp tax	7.0	6
Misc. receipts	26.7	23
Total receipts	116.2	100

[1] Bolivars converted to U. S. dollars at the rate of 3.335 bolivars per dollar.

Source: COORDINATOR OF INTER-AMERICAN AFFAIRS. BASIC DATA ON THE OTHER AMERICAN REPUBLICS. 172 pp., illus. Washington, D. C. [1945.]

Income taxes were levied for the first time in 1943. Private property, including land, is not taxed. If a tax were levied on land, it probably would be an incentive for putting more acreage to productive use, whereas without taxation much lies idle. Agriculture, consequently, does not carry a heavy tax burden, and it is benefited by Government revenue derived from oil companies.

Various other factors contribute to the high cost of food and of other living expenses. Many soils are naturally poor, and considerable erosion has occurred. Farming techniques are not advanced. Mechanization is slow because of the high cost of imported machinery and the inadaptability of machine methods to the mountainous conditions in some regions and too much moisture during the growing season in others. Inadequate and undeveloped transportation adds materially to marketing costs. Lack of storage facilities for perishables causes gluts and low prices in the season of production and scarcity and high prices in off seasons.

Venezuela's population of 3,951,000 is small in relation to its area. Labor is hard to obtain, and industrial interests, especially the petroleum companies, compete with farmers for the available supply. The high wages offered by private interests, particularly for construction work, and by the petroleum industry attract many small farmers and farm laborers, thus contributing to high prices in general and retarding domestic farm production.

Prices of domestic foods, however, probably are not much out of line, judged by over-all Venezuelan costs. High wages and prices for the products bought by farmers (many of which are imported over high tariffs) are responsible for keeping Venezuelan farm prices above those in other countries. As a result, local producers generally have no outlet beyond the Venezuelan market, unless the Government provides export subsidies, pays exchange premiums, or defrays production costs by other means.

Foreign-Trade Control

For many years Venezuela has controlled its foreign trade chiefly by means of tariffs, but lately the Government has also given wide recognition to nontariff controls. Many of these were adopted during World War I, but the stabilization of currencies, with prosperity resulting thereafter, was instrumental in their termination. After 1929, they were used again and to a greater degree. The post-1929 depression and various exigencies prior to World War II caused nations generally to seek even more commercial protection through trade controls. Certain of these controls have affected the Venezuelan economy in general; some relate to industry, especially the petroleum interests; others apply to agriculture—domestic agricultural production, the exportation of coffee and cacao, and the importation of foodstuffs and textiles, which come chiefly from the United States.

IMPORT TARIFFS

The Venezuelan tariff is one of the highest in the world. The petroleum industry and custom duties on imports are the nation's principal sources of revenue. Twenty percent of the country's estimated tax receipts in the fiscal year 1943–44 were derived

[2] The Venezuelan Government grants concessions, but not ownership, to private interests for the exploitation of petroleum.

from import duties, whereas in the United States, 1 percent of actual tax receipts were derived from all custom collections (tables 1 and 2). Importing has been discouraged as a result. Exporting, on the other hand, has been stimulated by subsidies and the payment of exchange premiums. Exports are not taxed, except in an indirect way in the case of petroleum.

TABLE 2.—*Revenue receipts of United States Government, by source, for fiscal year 1943–44*

Source	Receipts: Amount	Receipts: Percentage of total
	Billion dollars	*Percent*
Income taxes:		
Individual	20.3	45
Corporation	15.2	33
Employment taxes	1.8	4
Excise taxes	4.4	10
Customs [1]	.4	1
Misc. receipts	3.3	7
Total	[2] 45.4	100

[1] Approximately 99 percent of U. S. customs receipts are derived from import duties.
[2] A deduction of 1.3 billion dollars is made to cover Federal old-age trust funds, etc., making a net total of 44.8 billion dollars.

Source: THE BUDGET OF THE UNITED STATES GOVERNMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1946; PT. I. 89 pp., illus. Washington, D. C. 1945. See p. A2.

In 1939, the American Advisory Economic Mission was sent from the United States to Venezuela at the request of the latter. This mission reported that the import duties collected in 1937 were equal to 70 percent of the value at the ports of all dutiable imports. Retail prices of many imported articles were from two to five times greater than the cost of the products landed at Venezuelan ports. Wheat flour is imported into Venezuela in greater quantity than any other foodstuff. In August 1939, the mission found the retail price nearly six times the import price. Of the retail price, 17 percent represented the import price of the flour, 44 percent the duty, 4 percent expenses incidental to landing and transporting the product to warehouses, and 35 percent expenses and profits of wholesalers and retailers.

Foodstuffs and textiles generally account for over 50 percent of the total duties collected. Rates of duty on these groups are among the highest in the schedule. Thus, people with low incomes suffer a heavy hardship, because imported necessities are beyond their means.

While the tariff on consumer goods is high, capital goods—including machinery and building materials—are admitted duty-free, or at moderate rates. Machinery, equipment, and supplies for petroleum companies; certain mining and public-utility enterprises; and imported necessities required by the Venezuelan Government are imported duty-free under special provision. During World War II imports were difficult to obtain because of lack of shipping facilities and goods. Under these circumstances, certain import duties were withdrawn temporarily.

The Venezuelan Government desires to promote domestic agriculture and industry, yet it imposes relatively heavy duties on raw materials, equipment, and supplies needed for the purpose. On the other hand, the Venezuelan tariff raises fiscal revenue and protects domestic industry and agriculture. The United States Tariff Commission [3] points out that tariff revenue accounted for more than one-third of total governmental income between 1930 and 1940.

The American Advisory Mission to Venezuela reports: [4]—

> Lower prices will result in increased consumption; consequently the loss in revenue that might be expected from reductions in tariff rates would in all probability not materialize because the new duties would be applicable to a large volume of imports. . . . Moreover, the tariff reductions should not interfere with any effort on the part of the Government to obtain greater efficiency in agriculture and industry or to enlarge production.

EXCHANGE CONTROL

In the early 1930's, the dollars exchanged for bolivars by petroleum and other interests to cover local operating expenses were generally enough to pay for the imports and foreign services required by the nation. This abundance, together with the devaluation of the dollar in 1933 and 1934, caused the bolivar to appreciate from an average value of 14.6 cents in 1932 to a maximum value of 32.2 cents in February 1934. Consequently, as the gold value of many currencies was reduced, the foreign exchange value of the bolivar increased relative to them. In Venezuela, dollars became cheap and bolivars expensive. Because of appreciation of the local currency, Venezuelan oil companies, which sell their exports mainly for dollars, received fewer bolivars per dollar when they exchanged currencies to pay operating expenses.

[3] UNITED STATES TARIFF COMMISSION. ECONOMIC CONTROLS AND COMMERCIAL POLICY IN VENEZUELA. 27 pp., illus. Washington. 1945. [Processed.] See p. 6.

[4] THE AMERICAN ADVISORY ECONOMIC MISSION TO VENEZUELA. REPORT TO THE MINISTER OF FINANCE. 340 pp., illus. Washington. 1940. [Processed.] See p. 76.

With the bolivar worth proportionately more than other currencies, Venezuelan agricultural production costs increased; yet the selling price in foreign currencies decreased, because world prices declined. A shortage of foreign exchange resulted.

These conditions prompted the Government to adopt a semiofficial system of exchange control to stop monetary appreciation in August 1934. The governments of most Latin American countries adopted exchange control to curb depreciation of their currencies in terms of foreign money and to husband exchange, but the Venezuelan Government used it chiefly to halt appreciation of the currency.

The petroleum dollar.—The Government, banks, and oil companies agreed that dollar exchange should be husbanded, purchased at a fixed rate, and resold at a slightly higher rate in 1934. The Government purchased sufficient dollar exchange from petroleum producers to cover commercial import requirements at 3.90 bolivars to the dollar. This established the so-called petroleum dollar. Exchange was transferred to commercial banks at this rate and resold by them for 3.93 bolivars to the dollar. This semiofficial method of exchange control was followed until 1941, when official control with a legal basis was adopted. Transactions since this date have been negotiated by the Government's Central Bank. The petroleum dollar rates have been gradually reduced. At present, the petroleum companies get 3.09 bolivars per dollar on most purchases and 3.02 for dollars sold in excess of the previous month's sales.

When World War II closed the European market to Venezuelan coffee and petroleum, exchange control was strengthened in 1940 and 1941 to conserve available currency. The free market was discontinued. All foreign-exchange transactions were subjected to control by an import-control commission and the Central Bank. The short supply of foreign exchange was allocated in accordance with a definite schedule of priorities.

Since July 1941, free-market exchange transactions have been permitted on most commodities other than petroleum. At present, exchange supplied by the Government to importers at the official controlled rate comes from foreign currency offered in payment for Venezuelan exports of petroleum, coffee, and cacao.

By 1942 petroleum exports had greatly increased, which made it unnecessary to conserve exchange balances, maintain import quotas, and issue import licenses as in 1940 and 1941. In fact, it became necessary to encourage imports, for countries were forced to restrict their exports to Venezuela because of the demands of war. As an encouragement, duties were lowered on several items.

The coffee and cacao dollar.—In addition to the petroleum dollar, there are a coffee dollar and a cacao dollar. The dollars received for exports of each of these commodities are exchanged for bolivars at different rates. This constitutes a system of multiple exchange, which serves as an indirect means of subsidizing coffee and cacao exports. Export transactions covering goods other than petroleum, coffee, and cacao are not controlled, which permits the sale of considerable exchange on the free market.

The Government wishes to continue its present system of exchange control involving multiple exchange rates. The system was established to facilitate (subsidize) exports of agricultural commodities and to get revenue from petroleum exports. The rates, however, do not discriminate between international currencies. Multiple rates are used when the Central Bank exchanges bolivars for dollars derived from petroleum, coffee, and cacao exports. When the bank sells dollars, however, the selling rate is uniform to all buyers at the current rate (January 1946) of 3.335 bolivars per dollar. Multiple rates thereby apply to inflowing dollars but not to those outflowing.

EXPORT SUBSIDIES AND EXCHANGE PREMIUMS

Venezuelan agricultural exports were placed at a price disadvantage in world markets by the appreciation in value of the bolivar in terms of foreign currencies, the effect of which was augmented by the high domestic farm-production costs described earlier. World prices are not sufficiently remunerative for Venezuelan farm products under prevailing production conditions. Hence, coffee and cacao growers, representing the major producers of export crops, would often fail to net a sufficient return in Venezuelan currency were it not for the export subsidies paid them directly and indirectly by the Government.

Venezuelan products, although produced at high cost, have competed on the world market. Deficiency subsidies have been used. The producer's output is sold on the foreign market for what it will bring, and the Government covers the loss directly

by subsidy payments or indirectly by exchange premiums granted by the multiple exchange rates. The money required for a subsidy, or an exchange premium, is derived chiefly from taxes and royalties contributed by petroleum concessionaires.

Export subsidies were granted to distressed agricultural producers as an alternative to currency depreciation, commencing in 1934. An appropriation of 10 million bolivars was granted by executive decree for subsidy payments to coffee and cacao producers at that time. The payments were continued, and, in January 1936, they were extended to nine other agricultural exports. The scope of subsidy payments was broadened by 1939 to cover all export products except petroleum, rubber, and gold. From 1934 to 1940, agricultural subsidy appropriations exceeded 150 million bolivars.

In spite of subsidies, exports have shown no material, permanent increases. In fact, coffee exports have tended to decrease, and cacao exports have remained fairly constant as the following figures indicate:

Year	*Coffee 1,000 short tons*	*Cacao 1,000 short tons*	*Year*	*Coffee 1,000 short tons*	*Cacao 1,000 short tons*
1934	50	15	1940	31	17
1935	59	17	1941	48	14
1936	68	18	1942	39	13
1937	46	18	1943	33	17
1938	40	23	1944	22	17
1939	30	17	1945	31	14

The payments probably permit the survival of high-cost producers. The American Advisory Economic Mission [5] reported that—

> . . . there is too much dependence upon Government subsidies and too little reliance on efficiency in operation and practically no attention to cost of production.

Export payments on sugar and sugarcane-derived liquors were stopped in 1940. In July 1941, all subsidies were terminated by executive decree. By this decree, coffee, cacao, and livestock subsidies, however, were replaced by premiums paid on foreign exchange derived from the exports of these commodities. Multiple exchange rates were thereby created as mentioned previously. Subsidies were terminated on exports of sheepskins, goatskins, sharkskins, divi-divi, chicle, bananas, and forest products, and no further monetary considerations have been given these products. Exchange derived from exports of these products is sold without preferential treatment on the uncontrolled exchange market.

The preferential exchange rates established by this decree created the coffee, livestock, and cacao dollars. In March 1942, the preferential rate applicable to livestock was removed. Benefits have been granted on coffee and cacao by these means continuously since then but at changing margins, depending somewhat upon the prices received on the foreign market for the product in question.

When dollars received for coffee, cacao, and petroleum exports are sold to the Central Bank, they are exchanged for bolivars at the following official rates: [6]

	Bolivars per Dollar [1]
Petroleum dollars:	
Up to an amount approximately equal to sales of exchange by the bank during the preceding month	3.09
Additional exchange purchased from petroleum industry	3.02
Coffee dollars:	
Washed coffee, all grades	4.80
Husked coffee	4.25
Cacao dollars	4.25

[1] These rates were effective through March 1946 but are subject to change.

These figures represent premiums of 43.9 percent for washed coffee and 27.4 percent for both husked coffee and cacao over the official rate of 3.335 bolivars per dollar paid for exchange offered on the uncontrolled market. In effect, these commodities are subsidized to this extent.

Agricultural-Production Policy

In addition to export subsidies and exchange premiums, coffee producers are aided by Government loans, crop-purchase programs, and minimum prices. The National Coffee Institute, financed by the Government, studies diseases, production methods, and markets. Similar assistance has been rendered by the Agricultural and Cattle Bank.[7] The quality of coffee has been improved by the establishment by the Government of six processing plants. Advances have been made in grading, packaging, and marketing. More washed

[5] See p. 12 of reference cited in footnote 4.

[6] CARSON, C. F. VENEZUELA'S SYSTEM OF EXCHANGE CONTROL. Foreign Com. Weekly 21 (6): 7–8, 15, illus. 1945. See p. 7.

[7] *Banco Agrícola y Pecuario*, a Government-controlled bank which provides credit to farmers and cattle ranchers at reasonable interest.

coffee of finer quality is being marketed, and this commands a higher price than unwashed sun-dried husked coffee.

In addition to coffee and cacao, the principal export commodities, other items are produced chiefly for domestic consumption. These include beef, corn, sugar, beans, peas, yuca, yams, onions, tobacco, and fruits, which usually are produced in quantities sufficient for domestic requirements; and wheat, rice, barley, oats, potatoes, and dairy products, which must be supplemented by imports. Since 1936, considerable aid has been given to producers of all these farm products for domestic consumption.[8]

AGRICULTURAL CREDIT

The Agricultural and Cattle Bank was established by the Government in 1928, and its activity has been intensified and broadened in scope since then. From 1936 to 1945, some 47,000 loans were made, totaling about 86 million bolivars. Its normal functions are to promote agricultural interests within prescribed limits under regulations conforming to ordinary banking practice. Crop loans are made, farm mortgages are placed, and various other types of financing are undertaken. A large number of foreclosures have been made on mortgages, and properties thus acquired constitute a considerable part of the bank's assets.

The bank accepted coffee in payment of indebtedness in 1939, and, during the crop year 1940–41, it bought about a third of the coffee crop to maintain prices and curb speculation. In 1941–42, it acquired four-fifths of the crop. The bank graded the coffee and thereby obtained a better price on the United States market. After 1942, private dealers acquired an increasing proportion of the coffee export trade. In late 1945, however, the bank purchased considerable coffee, and it will probably buy a large part of the 1946 crop.[9]

In 1940, the bank began to purchase grains; it sponsored rice-cultivation projects, sold seed potatoes at cost, and assumed the operation of several grain elevators and flour mills. Two meat-packing plants owned and operated by the Government have been financed by the bank, which maintains a number of coffee- and wheat-buying offices. In 1944, the Export-Import Bank extended to the Agricultural and Cattle Bank a credit of $3,000,000, and other credits have been extended since then.

Executive Decree No. 269 of November 17, 1944, created the Board for the Development of National Production,[10] the chief purpose of which is to extend cheap long-term credit for the development of agriculture, livestock, and industry. This decree makes available 60 million bolivars ($18,000,000), 50 percent of which is apportioned to agriculture, 30 percent for the production of meat and dairy products, and 20 percent to industry. One-half the total sum is derived from reserves of the national treasury and the remainder from bond issues. The principal and interest of the latter are guaranteed by the Government. The minimum interest rate on agricultural and livestock loans is 4 percent and on industrial loans, 5 percent.

Applications for loans to be drawn from funds of the Board are made to the Agricultural and Cattle Bank. The latter makes an investigation and reports its findings to the Board, which reviews applications on the basis of the facts and conditions as related to the policy and regulations under which it operates. Preferences in the bank's lending activities are given for the production of corn, rice, beans, cotton, sesame, vegetables, fruits, animal feed, milk for direct consumption, meat, cheese, and butter. Loans to industry are made primarily for processing and conserving food products and secondarily for the production of nonagricultural raw materials for use in manufacturing. The Board was established to attract more people to farming and to expand the activities of those engaged in it.

As of July 1945, the Board had granted loans totaling over 13 million bolivars, about 80 percent to industrial interests. At that time, loans were under study totaling an additional 23 million bolivars.

FOOD-SUPPLY MISSION

Since May 1943, a cooperative agency of the United States and Venezuelan Governments, commonly known as SCIPA,[11] has functioned to expand agricultural-extension, farm-credit, and home-demonstration services in Venezuela. This Mission operates on a small scale and does creditable work. In addition to a Director, it is composed of six United States technical staff members,

[8] For a more comprehensive discussion of the assistance rendered agriculture prior to 1942, see: WYLIE, KATHRYN H. VENEZUELA'S AGRICULTURAL PROBLEM. Foreign Agr. 6: 227–253. 1942.

[9] For more details see section on Revolutionary Government Regime.

[10] *Junta para el Fomento de la Producción Nacional.*

[11] *Servicio Cooperativo Interamericano de Producción de Alimentos.*

three of whom work in the field and three in the Mission's offices. One of the field-engaged staff members is a home-demonstration expert, another is supervising an agricultural-colony project (Tocoron), and the third is a dairy specialist.

AGRARIAN REFORM ACT

Large private and Government-owned rural estates dominate Venezuelan land tenure. Of 45,000 farms in the Northern and Guiana Highlands and the Llanos, 37 percent were from 2,500 to 24,999 acres in size, and 20 percent, 25,000 acres and more.[12] The Government acquired large tracts of good agricultural land from the estates of the late Venezuelan dictator, General Juan Vicente Gómez, after the latter's death in 1935. Considerable agitation has persisted for the expropriation and subdivision of large private landholdings and the distribution of these Government properties among nonlandholders.

The Venezuelan President appointed a commission to study the so-called agricultural reform. On March 13, 1945, it published the draft of a law offered for that purpose. This draft proposed a National Agricultural Institute[13] to promote agricultural credit, improve the cultural life and technical capacity of farmers and their children, stimulate the establishment of cooperatives and agricultural industries, conserve and improve the soil, promote crop insurance, and improve farm dwellings. As drafted by the commission, the law empowered the Government to give the Institute the public lands and agricultural properties derived from the estate of General Gómez and permitted the acquisition of lands by expropriation, their subdivision, and the creation of colonies, or other forms of tenure appropriate to achieve the desired agricultural reform.

This proposal was modified, however, in several particulars when it was presented to the National Congress, and the revision was made official as the Agrarian Law on September 20, 1945. Most of the changes restricted the powers of land expropriation granted to the National Agricultural Institute. One article of the final law demands parcelation of Government properties prior to expropriation of private property. Protection is afforded landowners whose holdings are productive. Croplands that require heavy capital investment in machinery and land preparation, or long-term occupancy of the crop on the land, are practically exempt from expropriation. These two exceptions will free most agricultural holdings from expropriation.

Under the final act, the Institute must utilize expropriated properties for specified purposes within 3 years. If it fails to do so, the original owner may reclaim his property, which privilege the owner was denied in the original draft of the law. In the act, the Institute is authorized to fix the size of parcels distributed to new landowners, whereas, in the proposal, the size of parcels was stated specifically, and the areas were too small to provide a decent living. The act will not result in immediate wholesale expropriation of agricultural lands, but it establishes the legal basis for such action which may hinder investments in and development of large properties for fear of subsequent seizure. It allows immediate parcelation of Government properties.

Revolutionary Government Regime

Since October 1945, Venezuela has been governed by a provisional Junta. The latter was established after the previous government was overthrown by revolution. The provisional government is distributing parcels of government-owned agricultural properties to peons. Several government-owned haciendas and a State agricultural-demonstration station have been divided and disposed of in this manner. Reports state that a seven-man tribunal will try many former government officials, whose property and wealth, if found to have been acquired illegally, it will expropriate. The Junta has frozen the assets of these individuals pending investigation.

The new regime has not as yet inaugurated an over-all agricultural program. Its Ministry of Agriculture has been engaged in reorganization, amendment of the program of the deposed government, and solution of problems arising day by day. The Ministry's basic activities have been continued, and increased budgets have been obtained for them. The Junta of government proposes to reduce the cost of living, although there is an ever-expanding amount of currency in circulation which makes reduction difficult. It is also demanding an agricultural program that will reduce the cost of foodstuffs.

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12 See p. 235 of reference cited in footnote 8.

13 *Instituto Agrario Nacional.*

The Junta has attempted to lower live-cattle prices to a level fixed by the deposed government, a price at which cattlemen refused to sell their stock. Because of this, the Agricultural and Cattle Bank has been made the sole purchaser of live cattle in the nation's price-fixed region, thus eliminating middlemen.

Venezuela is generally self-sufficient in sugar production. A high tariff enables profitable production for domestic consumption. In early 1945 there was a surplus of sugar, and, as a result, growers unsuccessfully demanded a sugar dollar to enable competition with Cuba on the world market. Disposal of the surplus at that time was made in Colombia. Yet in the fall of 1945, a sugar shortage developed which necessitated imports. Consequently, the Junta of government is encouraging cane production on irrigated flatlands. Financial assistance is being given in the interest of expansion, and the Junta proposes to finance a new sugar central in addition to the two that it operates now.

The Junta of government anticipated a corn shortage; consequently, it increased prices of this grain and guaranteed that the new prices would be paid by the Agricultural and Cattle Bank for the 1946 corn crop.

On November 13, the provisional government increased by about 25 percent the price at which the 1945–46 crop of *pergamino* coffee [14] would be purchased from growers by the Agricultural and Cattle Bank. This price is about 2 cents per pound above United States ceiling prices, including the 3-cent import subsidy [15] and the Venezuelan export-exchange premium. Purchases by the bank at the increased price stopped operations of private exporters and commission buyers on all but held-over stocks. On January 29, announcement was made that the bank would buy all grades of the 1945–46 Venezuelan coffee crop—not just the current crop of pergamino coffee—at stipulated increased prices.

If coffee growers wish to speculate on future prices, the bank offers to act as a broker. It will advance 80 percent of the newly established prices. The final gain or loss will accrue to the grower.

Several tariff reductions have been made by the Junta. The import duty on oats as grain and rolled oats has been reduced from 0.10 to 0.01 bolivar per kilogram (2.2 pounds), gross weight. The duty on wheat flour has been reduced from 0.24 to 0.04 bolivar per kilogram, and the price of bread has been lowered. Similar duty reductions have been made on wheat as grain, wheat flakes, and crushed wheat. To compensate domestic wheat growers, the Agricultural and Cattle Bank pays them the prices that prevailed under the tariff, resells to millers at rates created by removal of the tariff, and absorbs the loss. Domestic producers therefore are subsidized in amounts comparable to the tariff. A decree of October 16, 1945, gave the Ministry of Finance an additional appropriation of 1 million bolivars to cover such losses.

The price of gasoline has been reduced by withdrawing the tax upon it and lowering the wholesale price. A good proportion of it is used for transporting farm products and for various farm operations. Electric rates have been reduced, and rents are expected to be cut.

On December 31, 1945, a decree was issued imposing a graduated surtax on 1945 profits in excess of 800,000 bolivars. The proceeds, estimated at 120,000,000 bolivars, will be used to finance low-cost housing, industrial and agricultural projects, and to establish a national merchant marine. Another decree exempts from taxation for 5 years the incomes on low-cost housing projects initiated within 2 years.

To protect the domestic dairy industry, the Government has made mandatory the acquisition of a prior import license before butter can be imported.

To summarize, since the overthrow of the Government on October 18, 1945, the Revolutionary

[14] Coffee from which the outer pulp has been washed leaving the inner hull containing the bean. When this is dehulled and polished, it is known as *lavado* (washed, ready for export) coffee.

[15] The U. S. Government announced that it would pay an import subsidy of 3 cents per pound on a maximum of 6 million pounds of coffee imported from November 19, 1945, to March 31, 1946. Later the subsidy was extended to June 30, 1946, at an additional cost not to exceed 30 million dollars.

FOREIGN AGRICULTURE HALLY H. CONRAD, EDITOR

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Junta has emphasized the need for lower prices and has subsidized farm production and reduced tariffs to promote this end. Government properties are being divided and distributed to peons. Low-cost housing projects are being expanded by Government financial assistance and tax exemptions. Increased agricultural production is being emphasized.

Soviet Aid to Agricultural Specialists

by **SYLVIA GOODSTEIN***

With the expansion of collectivization and mechanization of Soviet agriculture, the responsibility of agricultural specialists as directors and managers of the collective-farm production program was greatly augmented. They must now help to speed the restoration of agriculture in the liberated areas and the achievement of the goal of the new 5-year plan to surpass the prewar level of production.

In order to improve the material welfare of the agricultural specialists, a decree was issued by the Soviet Government on November 2, 1945, which provided that garden plots, livestock, housing, and credit assistance be given to them. The specific terms of the decree follow.

Agronomists, animal-husbandry specialists, veterinarians, and land-use specialists working on collective farms and living in rural areas are to be allotted garden plots limited to 0.25 hectare (0.6 acre), inclusive of the area occupied by buildings. During the war, such little plots planted to potatoes and vegetables played an important part in augmenting the meager food supply of the nonfarming population. Beginning January 1, 1946, these specialists were to be excused from payments to the State of the tax in kind on potatoes grown on the plots.

Allotment of garden plots was to be made before January 1946 from the State land reserve or that of municipalities, from the land reserve of the State farms, and also from the reserve garden plots of the collective farms, with the consent of the latter.

A cow or a calf for their personal use is to be sold to the agricultural specialists of the District Agricultural Bureaus and the Machine Tractor Stations which do not own any livestock. For this purpose, the Government approved the plan for the purchase, in 1945–46, of 10,200 cows and 42,000 calves at State purchase prices on those collective farms which fulfilled the State plan of livestock development.

Local authorities are charged with the task of planning the construction of living quarters for these specialists so that by the end of 1946 they will have been provided with well-constructed homes. Local supplies of building materials and labor will have to be used to build these homes.

The Agricultural Bank is required to provide the agricultural specialists with credit for building houses and for the purchase of livestock. Each specialist may borrow up to 7,000 rubles ($1,321, U. S. currency, at the legal rate of exchange) for his home, repayable within 6 years, and may borrow up to 3,000 rubles ($566) for the purchase of livestock, repayable within 3 years.[1]

A statement was made, in connection with the decree, that the principal agronomist of the District Agricultural Bureau is sometimes deprived of the opportunity to visit frequently the collective farms because of inadequate means of travel. The agronomist, therefore, is to be provided with a horse for his official use. The decree also provided for the sale of bicycles and manufactured goods to principal and senior agricultural specialists.

The number of agricultural specialists in the Soviet Union has increased rapidly under collectivization. From 16,800 in 1926, agronomists increased to 107,200 in 1938. The number of veterinarians increased from 4,900 to 17,100, respectively, in those years; and, by 1938, there were 92,000 crop-production and animal-husbandry specialists in the Union.

*Office of Foreign Agricultural Relations.

[1] The purchasing power of the ruble, which greatly depreciated during the war, is considerably less than indicated by the legal rate of exchange.

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